ABSTRACT OF THE DISCLOSURE

In a radiographic inspection device which can shorten the inspection time and which can enhance the spatial resolution of thus obtained image, has two first and second radiation detecting devices each of which comprises several radiation detectors, a collimator device and a collimator moving device. The collimator device incorporates grid-like shield members defining several γ ray passages. Each of the γ ray passages has a cross-sectional area which is greater than that of each of the radiation detectors. The collimator device in the first radiation detecting device is moved in the longitudinal direction through the rotation of a motor in the collimator moving device while the collimator device in the second radiation detecting device is moved in a direction orthogonal to the longitudinal direction through a motor in the collimator moving device. Since the cross-sectional area of the γ ray passage is greater than that of the radiation detector, the sensitivity of detection of γ rays as to the radiation detector is enhanced, thereby it is possible to greatly shorten the inspection time. Further, since the collimator devices are moved by the collimator moving devices, respectively, the spatial resolution by the tomogram can be enhance.